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## DOCUMENTS, REPORTS, AND LEGISLATION

### Industries and Commerce

REPORT ON ANTHRACITE AND BITUMINOUS COAL. In response to Senate resolutions adopted June 22, 1916, and April 30, 1917, the Federal Trade Commission transmitted to the Senate in June, 1917, a report on *Anthracite and Bituminous Coal* (Sen. Doc. No. 50, 1 Sess., 65 Cong., Washington, 1917, pp. 420).

The report describes fully the anthracite coal situation during the winter of 1916-17. As is well known, there developed during last winter a buying panic on the part of consumers, which proved more serious than any since the anthracite strike of 1902 (in which year mining operations were actually suspended for four months). This abnormal demand, the report brings out, was largely the result of artificial and psychological conditions. The imminence of a nationwide railroad strike in the fall created an intense demand for coal; the dealers naturally found themselves unable to supply this demand promptly; "scare" articles in the newspapers predicted a coal famine; and the outcome was a buyer's panic.

The railroad coal companies during this crisis exercised on the whole a stabilizing influence by adhering rather faithfully to circular prices, but many of the independent operators took advantage of the situation and charged exorbitant prices, often \$1, \$3, and in some cases \$5 per ton higher than their normal figures. In fact, some of the independent producers practically auctioned off their coal to the highest bidder, the price changing from day to day, and even from hour to hour. The most striking feature of the market, however, was the speculative activity of the jobbers, who in the anthracite industry buy largely from the independent operators. The jobbers, it should be noted, perform no physical service; they do not unload or store coal or deliver to retailers' wagons from a storage pocket as do the wholesalers. As a class the jobbers took full advantage of the abnormal demand. The majority of them realized double or treble their normal gross margins; and in the eastern markets individual sales were frequently made upon which gross margins of \$4 to \$6 a ton were realized, instead of the usual margins for eastern jobbers of 10 to 15 cents per ton. Moreover, coal was often sold by one jobber to another. On a random selection of 142 high premium purchases by retailers, 56 were found to have passed through the hands of more than one jobber. A number of these orders passed through as many as three or four hands, each jobber generally taking a large profit; and in a few in-

stances the same coal passed through the same jobber's hands twice. So far as the retailers of anthracite were concerned, their practice varied greatly in different communities. The necessity of buying premium coal to meet a portion of their demands naturally justified higher prices in many instances, though only too often these purchases of premium coal were used as an excuse for the charging of fancy prices on coal for which no premium had been paid.

The panicky condition of the anthracite market was not justified by the conditions of production. It is true that the quantity of anthracite sent to market from the mines and from storage was  $3\frac{1}{2}$  per cent less during the coal year April 1, 1916, to March 31, 1917, than during the preceding year, yet it was 4 per cent greater than the average supply marketed during the three preceding coal years, including the excellent year 1915-1916. The commission held that all the anthracite demanded would probably have been supplied and without any marked increase in prices had not the trade played upon the public fear of a scarcity.

What of the prospects for 1917-1918? During the first two months of the coal year of 1917 (April and May) the output of anthracite was 24 per cent larger than during the corresponding period in 1916. This additional output should have materially increased the supply of anthracite available for household uses, yet as a matter of fact it did not. The explanation is to be found in the conditions in the bituminous and coke industries. The demand for bituminous coal and coke was unprecedented, and although the output of these commodities greatly increased during April and May, 1917, nevertheless it did not increase sufficiently to take care of the added industrial demands. The difficulty lay in the inadequate supply of cars. The bituminous coal mines already opened could easily have supplied all the coal that was needed had cars been available. The commission further found that the cars even when once loaded were often not promptly moved to the point of consumption and promptly unloaded. The natural result of these conditions, of course, was a decided advance in the price of bituminous coal. The price of coal to the railroads and other large consumers was generally advanced from 100 to 150 per cent, while the price to small consumers was often advanced from 200 to 400 per cent. These prices were so high that it became increasingly profitable to use anthracite coal for industrial purposes. The anthracite producers therefore increased their production of the smaller or steam sizes, with the result that the supply of domestic sizes used in the household trade failed to increase as rapidly as it would otherwise

have done. This explains why the increased output of anthracite failed to improve materially the position of the household consumer. Meanwhile stocks of anthracite coal were not being piled up as usual in the Northwest and in New England. (It was the failure to store coal in these sections which normally secure the major part of their supply by water that made it necessary for Judge Robert Lovett, when placed in charge of priority of shipments, to issue in August, 1917, as almost his first official act, an order to certain railroads and water lines requiring them to give the priority to shipments of coal to the Northwest, in order that the requisite stocks of coal might reach this section before the navigation season closed.)

The high price of bituminous coal in one important respect reacted unfavorably on the soft coal industry. It prompted the opening of new, high cost mines, called in the industry "snowbirds" or "wagon mines." These temporary mines obtained, of course, a part of the inadequate supply of cars allotted by the railroads to the coal industry. But since these mines had none of the usual loading facilities, the cars were often held at the mines for several days, whereas at a properly equipped mine the cars could be loaded in a few minutes. The operation of these properties obviously curtailed production, and therefore represented economic waste. (Happily the proclamation of President Wilson fixing the price of bituminous coal at the mines will largely eliminate these temporary operations.)

To remedy the unfortunate state of affairs above described the commission, so far as anthracite was concerned, went to the limit of its authority. It announced to the trade what it regarded as reasonable maximum prices for anthracite coal at the mines; and it threatened to report publicly to the Senate the names of any producers charging prices that on the basis of their costs proved upon investigation to be unreasonable. It notified the anthracite jobbers what it regarded as reasonable margins for the service performed by them; and required all jobbers to render weekly reports to it. Offending jobbers were also threatened with special reports to the Senate. The retailers the commission could not reach in this way because of its limited powers and means, but it did send its agents to many cities to investigate complaints that unreasonable prices were being charged by the retailers. By these methods the commission succeeded in greatly reducing speculation and inordinate profits so far as the domestic sizes of anthracite were concerned. But it found that it could not control the steam sizes of anthracite so long as speculation ruled in the bituminous coal market. Moreover, it could not handle the bituminous coal

situation as it had handled the anthracite because the bituminous mines were so numerous, were located in such widely scattered districts, and produced so many different kinds of coal suitable for a great variety of purposes. The bituminous coal problem, however, had to be settled, since otherwise industrial and military activity would be retarded, if not paralyzed. The commission therefore suggested to Congress the measures that should be adopted to remedy the situation. It recommended: first, "that the production and distribution of coal and coke be conducted through a pool in the hands of a Government agency; that the producers of various grades of fuel be paid their full cost of production plus a uniform profit per ton (with due allowance for quality of product and efficiency of service)"; second, "that the transportation agencies of the United States, both rail and water, be similarly pooled and operated on Government account, under the direction of the President, and that all such means of transportation be operated as a unit, the owning corporations being paid a just and fair compensation which would cover normal net profit, upkeep and betterments."

Thus far these recommendations have not been adopted. The President of the United States under the authority granted to him by the Lever act (passed August 10, 1917) has fixed by proclamations dated August 21 and 23 the prices to be charged at the mines by the producers of bituminous and anthracite coal; and also the margins that may be added to these prices by the jobbers (not wholesalers). Almost at the same time he appointed Dr. Harry A. Garfield, President of Williams College, as Fuel Administrator. No regulations as to wholesalers and retailers have yet (September 15) been issued, but the Fuel Administrator has announced that the necessary measures will be taken as soon as possible to fix the wholesalers' and retailers' margins, and thus to determine the price to be paid by the consumer. Dr. Garfield's plan, as announced in a statement of September 7, is to appoint in each state and territory a representative of the fuel administration, and also a committee of citizens, these two agencies together to assume direction of the regulation of the sale of coal in their respective states. Each state representative, as soon as appointed, is in turn to designate a committee of citizens in each county of the state and in each city in the state having a population of over 2500, these local committees to act as the representatives of the fuel administration. Through these agencies Dr. Garfield expects to keep in touch with local needs and to establish a fair price for coal to the consumer. The licensing of all operators, wholesalers, and jobbers as

authorized in section five of the Lever act is promised by Dr. Garfield; and it is probable that the large retailers as well will be required to take out a license as a condition of dealing in coal (retailers with gross sales of less than \$100,000 per annum are exempted from the provisions of this section).

Whether these measures will prove effective remains to be seen. The situation is complicated, it should be said, by the fact that some 75 per cent of the bituminous coal output is already sold under contract, and these contracts if made prior to August 21 are not affected by the proclamation of that date. The contracts, of course, must be bona fide ones. Dr. Garfield has announced that the government will not allow itself to be defeated by men setting up spurious or questionable coal contracts to avoid the new price scale. The law, he said, was not passed for temporizing purposes, and all contracts will therefore be scrutinized with the greatest care. However, the contracts that are clearly bona fide greatly limit the quantity of coal that will remain to be sold at the prices fixed by the President. Recognizing this fact, Dr. Garfield has intimated that he will recommend the requisition, as provided for in section twenty-five of the Lever act, of the plants of those operators who do not make available their share of the supply of coal required to take care of the needs of domestic consumers. The administration thus holds the trump card, and the Fuel Administrator, judging from his utterances thus far, will not hesitate to make use of it. Nevertheless it would be dangerous to predict that the fuel problem is in a fair way to be solved. Should the war prove of long duration it may become necessary for the government to acquire the total coal output at the mines, as it is authorized to do by section twenty-five of the Lever act; and it may even become necessary for it to take over the coal mines, as Great Britain and the Russian Provisional Government have already done.

ELIOT JONES.

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THE FEDERAL TRADE COMMISSION'S REPORT ON COÖPERATION IN AMERICAN EXPORT TRADE. In its report on *Coöperation in the American Export Trade* (Washington, 1916, pp. 984) the Federal Trade Commission recommended that the German cartel system be legalized for American foreign trade. While the report in which this revolutionary proposal is made is undoubtedly the most important collection of data relating to foreign combines which has as yet appeared, it presents only one side of the case. On page 13, part I, appears this

significant statement: "Much of the information regarding foreign business organizations and foreign combines in these sources was originally furnished, directly or indirectly, by those interested in the organizations." Throughout the report the commission accepts at their face value all of the claims advanced by the cartel's advocates—neither verifying them by a field investigation nor attempting to determine how much of the trade expansion attributed to combinations is due to other factors. The commission not only draws its facts from interested sources but absolutely ignores the opposing facts, for, while claiming that the existing system of exporting is inadequate, it does not analyze its costs, service, or methods, saying on page 13, part I: "No detailed description is given of the agencies by which American export trade and that of other countries is carried on."

The commission does not prove that American exporters cannot compete with foreign combines. This claim is discredited by the steady growth of American exports. The statements from American consuls contained in part II of the report are the only thoroughly disinterested information regarding foreign combines presented by the commission—yet, little attention is paid to them. None of these consuls believe that American exporters are handicapped through lack of American export combines. All of them claim that American goods can be sold under present conditions provided price, quality, and service are right, the great obstacles being tariff provisions and the lack of American ships, banks, and foreign investments. The report most favorable to the cartels is that of the consul general to Turkey, but even he declares on page 141, part II, that our export needs are steamships, banks, and through bills of lading, and that if these were supplied Americans could compete "with the German system of combination which appears to thrive so well under a paternalistic form of government." Of the forty-three consuls reporting, nine state that they have *no knowledge of any combine* (pp. 117, 118, 177, 181, 217, 232, 236, 237-238, 242, part II); seven declare that the only foreign combines operating in their districts are either well-known American trusts (pp. 129, 133, 186, 230, part II) or the German Potash Cartel (pp. 183, 185, 239, part II); while four express the opinion that export combines are impractical (pp. 108, 176, 181-182, 185, part II).

The commission does not attempt to determine whether the small manufacturer cannot best market his product through independent exporters, importers, commission houses, and manufacturers' agents. I have analyzed this point in a paper which appeared in the *Economic World* of April 21. On pages 184, 374-375, part I, the commission

acknowledges that American export trade was built up by independent middlemen.

The commission does not consider the results of the control of export combines by the large producer and the financier. While the chart on page 62 and the text on pages 203-215, 273-279, 327-330, part I, and pages 3-89, 519-534, part II, conclusively proves that the cartel system has enabled a few banks to dominate German industry, the commission would apply the same system to the United States without giving a passing thought to the dangers involved.

The commission ignores the fact, which its own report proves, that every successful export combine has eliminated competition in domestic trade and that most of the combines cited were organized for one object—the instant removal of surplus production from the home market by means of dumping.

A reading of page 6, part I, gives the impression that combines are a large factor in British export trade, yet a careful study of the descriptive parts of the report, especially of pages 219 and 248, part I, bears out the well-known fact that England's vast foreign trade is carried on by independent concerns. Analysis also reveals that the English and Canadian export associations, of which so much is made, are either selling agents or trade associations of the type common in the United States. None of these would violate the American anti-trust laws, as they do not fix price, restrict output, or divide territory.

On page 6, part I, the commission declares that the English coal operators' combine "gives British coal its grip on the important South American market"; while on pages 332-345, part I, it argues that this combine is able to prevent the sale of American coal in foreign markets. These claims are flatly contradicted. First, by the statement on page 595, part II: "Apart from the quality of her coal and her geographical situation, England's position in coal export trade may be definitely ascribed to an adequate and cheap supply of marine transportation"; and second, by the fact that an examination of the tables on pages 584-587 shows that seven members of the English combines act as selling agents for eleven American coal producers.

Although the commission devotes pages 327-330, part I, to the description of the Rhenish-Westphalian Coal Syndicate, which it calls "one of the most important cartels in the Empire," it overlooks the vital fact mentioned by Consul General J. G. Lay on page 28, part II, that English coal has displaced German fuel in important parts of the *German market*.

On page 6, part I, the commission states: "In Japan an export



organization of textile manufacturers is rapidly obtaining the extensive cotton goods trade of North China." On page 269, part I, it mentions "other factors named as contributing to the success of Japanese over American goods." Business men will agree that these "other factors"—not combines—together with the skilful use of the small middlemen and the close adaptation of her textiles to the needs of the Chinese consumer are the elements which are really responsible for Japan's success. While on page 268, part I, the commission states that a former Japanese cotton export syndicate "broke up in 1912" it neglects to mention that Consul General Heintzleman reports on pages 224-225, part II, that this syndicate was driven out of business because the trade could be more efficiently carried on by independent middlemen.

The commission does not give the slightest consideration to the commercial effect of the rigid agreements and regulations which the proposed combines would enforce. With unlimited facilities it did not inquire into the effect of rigid trade agreements on Germany's foreign commerce.

The commission believes that combinations would increase "selling efficiency." This is the very heart of the trust question, for if the "economies of combination" are productive in foreign trade they would be doubly productive in domestic trade. Under these circumstances the entire anti-trust policy would be directly opposed to the public interest. Nowhere does the commission try to determine whether export combines would force growth beyond the point of maximum efficiency.

The commission does not devote a line of its report to the economic consequences of destroying individual enterprise, incentive, and responsibility in our foreign trade by forcing the businesses of countless independent business men into the control of export combines.

Most economists will agree that the foregoing establishes the superficial nature of this investigation and that almost any one of the omitted factors is of sufficient importance to weaken and possibly destroy the validity of the conclusions reached. Yet as a result of this "comprehensive report" Congress is about to legalize practically unrestricted combination in a large part of the nation's business.

W. P. GOEMANN.

CO-OPERATIVE MARKETING ORGANIZATIONS AMONG FARMERS. Within the past two years the Office (now Bureau) of Markets, of the United States Department of Agriculture, has issued several bulletins on co-

operative organization embodying the results of studies made by its employees. Most of these deal with accounting systems for the various types of organizations. The purpose of the bulletin on *Coöperative Purchasing and Marketing Organizations among Farmers in the United States* (Washington: United States Department of Agriculture, Contribution from the Office of Markets and Rural Organization, September 19, 1917, pp. 82) is to present the statistics of agricultural co-operation by states and types of organization; to describe briefly the various types; to give a short account of a few representative associations; to discuss the methods of financing and the business practices of the various types of associations; to summarize and digest the co-operative laws of the several states; and to explain the provisions of the Clayton anti-trust act with reference to farmers' organizations. A selected list of references on coöperation, chiefly in the United States, is appended.

The data upon which the report is based have been in process of collection for some years. Most of the figures refer to 1914 or earlier and practically none of the facts are of later date than 1915. Unfortunately, but perhaps necessarily, the reports do not refer to any one year. Of the 5,424 organizations considered, about 16 per cent reported their statistics for 1912, 55 per cent for 1913, 50 per cent for 1914, and 10 per cent for 1915. The report deals very fairly with these statistics, however, and despite the tremendous recent development of coöperative activities the reports are, doubtless, fairly typical.

The extent of these organizations is striking. The corrected list used by the Department of Agriculture includes 12,300 associations distributed over the entire United States. From these 5,424 reports were received: 1,637 are grain elevators, 1,708 are creameries and cheese factories, 871 fruit and produce exchanges, 213 cotton associations, 275 stores, 96 live stock, 43 tobacco, and 581 miscellaneous associations. The membership is approximately 661,000 and the annual volume of business \$626,000,000. The average member does a business of \$946 per year, varying from \$241 for coöperative store members to \$1,856 for members of one cotton association.

The volume of business per organization shows that many of them are substantial business concerns. The average elevator reports an annual business of \$143,000, fruit and produce and cotton associations \$161,000, tobacco associations \$157,000 and live stock shipping associations \$99,000. The corresponding figures for 1916 are doubtless very much greater on account of the tremendous advance in the values of farm products. The figures above quoted are for individual local

organizations. The great central exchanges have much greater turn-overs. The California Fruit Growers' Exchange reports a business of \$27,700,000 for the year ending August, 1916 (for 1917, \$47,700,000); and nine fruit and produce exchanges do an aggregate business of more than \$42,000,000 annually.

The report points out that about one half of these organizations, although coöperative in spirit, intent, and practice, are formed on the joint-stock plan. Nearly 70 per cent of the elevators and 80 per cent of the cotton associations are joint-stock corporations. This is due in part to the capital requirements of the enterprise, and in part to the lack of adequate coöperative laws in many states.

The chapter on methods of financing is interesting and important. In spite of their business stability and commercial importance the farmers' elevators pay high rates on loans from banks and one third of them can offer no credit acceptable to bankers except the personal notes of the directors. Many still borrow from commission firms. Co-operative creameries and cheese factories have a better financial standing with banks but, taken as a whole, banks have not accorded farmers' organizations as favorable credit terms as organizations of their size and commercial integrity would seem to deserve.

The digest of state coöperative laws is not complete, but it shows that thirty states have made some provisions for the incorporation of coöperative associations. The digest is inadequate (Vermont, which has had a coöperative law for some time, is omitted, as are probably other states) and inaccurate (the details of the Massachusetts law are taken from the original law of 1913, instead of 1915), hence the reader must verify each statement in the summary. Nevertheless, the exhibit shows the diversity of the legislation and an ignorance of the fundamentals of coöperation on the part of many of our lawmakers. The United States Department of Agriculture has prepared a draft of an elaborate coöperative bill, the fundamentals of which it is hoped may be enacted into law in those states having no coöperative legislation, and substituted for the imperfect laws now existing in several states.

The bulletin is timely and, in general, helpful. Were it brought down to date it would be still more helpful.

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From the Bureau of Foreign and Domestic Commerce of the United States Department of Commerce the following publications have been received:

In the Special Agents Series:

- No. 141, *The West Indies as an Export Field* (pp. 378), by Gerrard Harris.
- No. 142, *Markets for Agricultural Implements and Machinery in Chile and Peru* (pp. 48), by Frank H. von Motz.
- No. 143, *Paper, Paper Products, and Printing Machinery in Peru, Bolivia, and Ecuador* (pp. 77), by Robert S. Barrett.
- No. 144, *Markets for Construction Materials and Machinery in Venezuela* (pp. 57), by W. W. Ewing.
- No. 145, *Market for Boots and Shoes in Jamaica* (pp. 24), by Herman G. Brock.

In the Miscellaneous Series:

- No. 54, *Canned Foods: Modern Processes of Canning in the United States, General System of Grading, and Description of Products Available for Export* (pp. 79).
- No. 55, *Markets for American Hardware in Italy, Spain, and Portugal* (pp. 109), by C. W. A. Veditz.
- No. 57, *German Foreign-Trade Organization with Supplementary Statistical Material and Extracts from Official Reports on German Methods* (pp. 182), by Chauncey D. Snow. This is of exceptional interest. It contains chapters on Historical development of German export trade; Commercial education; Industrial colonization; German banks and foreign trade; German merchant shipping; Government assistance to foreign trade; Private and semipublic trade associations; and Study and cultivation of foreign trade and foreign markets. A part of the material has been taken from previous publications of the bureau.
- No. 60, *The Glass Industry: Report of the Cost of Production of Glass in the United States* (pp. 430).
- No. 61, *Commercial Organizations of the United States*, revised to July 1, 1917 (pp. 116).

The federal Bureau of the Census has published a series of bulletins relating to different branches of industry summarizing the results of the *Census of Manufactures: 1914*. Among the industries thus far covered are: Automobiles, including bodies and parts (pp. 19); Butter, cheese, and condensed milk (pp. 23); Flour-mill and gristmill products (pp. 20); Manufacture of glass (pp. 13); Glucose and starch industry (pp. 9); Manufactured ice (pp. 15); Needles, pins, and hooks and eyes (pp. 8); Oilcloth and linoleum (pp. 8); Paper and wood pulp (pp. 19); Rice cleaning and polishing (pp. 9); The soap industry (pp. 11); and The sugar industry (pp. 13).

Among the bulletins recently issued by the United States Department of Agriculture are:

No. 389, *Public Road Mileage and Revenues in the Central, Mountain, and Pacific States, 1914* (pp. 56, lxxv).

No. 548, *The Business of Ten Dairy Farms in the Bluegrass Region of Kentucky* (pp. 12).

No. 558, *Marketing Grain at Country Points* (pp. 45).

Farmers' Bulletin 809, *Marketing Live Stock in the South: Suggestions for Improvement* (pp. 16).

The Federal Trade Commission has made a *Report on the Beet Sugar Industry in the United States* (Washington, May 24, 1917, pp. 164).

The federal Bureau of the Census has published a pamphlet on *Cotton Production in the United States, Crop of 1916* (pp. 43).

The Chamber of Commerce of the United States of America is issuing a series of brief war bulletins.

The United States Department of Agriculture, in coöperation with the extension service of the Massachusetts Agricultural College, is establishing four offices for the marketing of farm produce in Massachusetts. Mr. Elliot C. Rogers has been engaged to take charge of the office in Lynn, which covers Middlesex and Essex counties; Mr. R. W. Merrick for the one in Brockton covering Plymouth, Norfolk, and Barnstable counties; Professor W. L. Machmer, of the agricultural college, for the one which will have supervision of the work in the four western counties of the state, with headquarters in either Springfield or Northampton. A fourth office will be opened in Worcester. Professor E. Farnham Damon will have general charge of this work.

The *Third Annual Report of the Department of Foods and Markets of New York, 1916* (Albany, 1917, pp. 26) describes methods that were put in operation in order to bring the farm and the consumer nearer together.

A bulletin of the Extension Division of Indiana University is *City Markets: How to Start and Operate a City Public Retail Market*, by Professor Frank T. Stockton, now of the University of South Dakota (July, 1917, pp. 16).

The Guaranty Trust Company has issued a summary of the *Espionage Act* dealing especially with regulation of exports (New York).

The National Bank of Commerce in New York has issued a pamph-

let on *Exports of Raw Cotton from the United States to the Leading European Neutrals, 1900-1917* (New York, Sept., 1917, pp. 13).

Under the combined auspices of the Attorney-General of Massachusetts, the department of agricultural economics of the Massachusetts Agricultural College, the Boston Chamber of Commerce, and the Food Administrator of the state, an investigation of the cost of distributing milk in Boston and vicinity has been made. The investigation includes a careful study of the accounts of twenty of the smaller distributors and of three or four of the so-called milk contractors. Under the same auspices a thoroughgoing study of the cost of production of milk in the six New England states has already been made, figures being secured from some 850 farms producing some 12,000,000 quarts of milk. A bulletin summarizing the results of this investigation is now in preparation by the Massachusetts Agricultural College.

A new organization which promises much for the whole milk industry is the National Milk Producers' Federation, which was organized and incorporated at Chicago in December, 1916. The purposes are an investigation of the conditions and contracts under which milk is sold by farmers and wholesalers; the dissemination of information concerning prices, markets and grades to members of the Federation and to producers; the introduction of legislation dealing with grades and standards; the organization of milk producers' associations; and, in general, the protection of the whole milk industry. The membership includes organizations of milk producers, particularly those selling whole milk. At present the Federation has among its members such organizations as the Chicago, Twin City, Milwaukee, St. Louis, Cincinnati, Michigan, and Northern Ohio milk producers' associations, the Dairymen's League of New York, The New England Milk Producers' Association, covering the six New England states, the Tri-State Milk Producers' Association, which includes New Jersey, Pennsylvania and Maryland, as well as a few smaller organizations. The Federation met in Washington, D. C., on October 10, to perfect the organization, to discuss with the Federal Food Administrator the problem of milk prices and contracts, and to take up with the Department of Justice the legal status of farmers' associations dealing with the sale of milk. Hereafter, the Federation will maintain in Washington a representative whose time will be devoted to the interests of farmers' dairy associations, especially those dealing with the marketing of whole milk.

A. E. C.

## Corporations

The Bureau of Railway Economics has published a *Summary of Railway Returns for the Year Ending December 31, 1916* (Washington, Consecutive No. 114; Miscellaneous Series No. 29, 1917, pp. 23). This is the third bulletin in this series.

There have been received from the Presidents' Conference Committee (937 Commercial Trust Bldg., Philadelphia):

*Corporate History of Philadelphia, Baltimore and Washington Railroad Company as of the Date of Valuation, June 30, 1915* (pp. 32), with chart showing the relation of the different companies.

*Hearing before the Interstate Commerce Commission* in the matter of valuation of the Atlanta, Birmingham, & Atlantic Railroad Company and other companies of the South and Southwest (pp. 34). The hearing was held June 18, 1917.

*Statement prepared by H. C. Phillips, General Secretary, of the Developments in Connection with Federal Valuation, as of September 20, 1917* (pp. 4).

Poor's Manual Company has published the *Intermediate Manual of Railroads*. Bond statements, income accounts, and balance sheets have been revised. (New York, 80 Lafayette St., \$7.50.)

Among public utility reports recently received are the following:

*Fifth Annual Report of the Public Utilities Commission of Connecticut* (Hartford, 1917, pp. 659). The volume is largely made up of statistical tables and does not include the decisions of the commission.

*Reports of the Board of Public Utility Commissioners of New Jersey*, volume IV, July 12, 1915 to December 29, 1916 (Trenton, 1917, pp. 613). This contains the decisions made by the commission during a period of a year and a half.

*Financial and Miscellaneous Statistics Compiled from Annual Reports Made by Public Utilities to the Board of Public Utility Commissioners of New Jersey*, for 1915 (Trenton, 1917, pp. 234).

*Reports of Decisions of the Public Service Commission, Second District, New York*, 1916, volume V (Albany, 1917, pp. 445).

*Tenth Annual Report of the Public Service Commission of Oregon*, December, 1916 (Salem, 1917, pp. 248). This contains a report on lighting, heating, and power rates of the Portland Railroad, Light, and Power Company (pp. 67-130), in which there is a discussion of the principles of reproduction cost and going cost.

*Sixth Annual Report of the Public Service Commission of the State of Washington* (Olympia, 1916, pp. 437). This contains the decisions.

*Fifth Annual Report of the Public Utilities Commission of Rhode Island*, for 1916 (Providence, 1917, pp. 135, viii). No extended decisions involving questions of general policy are included.

*Seventh Annual Report of the Quebec Public Utilities Commission*, for the year ending June 30, 1916 (Quebec, pp. 193).

### Labor

Recent bulletins of the federal Bureau of Labor Statistics are:

No. 204, *Street Railway Employment in the United States* (Washington, April, 1917, pp. 1134). This contains chapters on Wages of car crews, Hours of labor and days worked, Associations of employers and employees, and Agreements between employers and employees. There are extended statistical tables illustrating the various points under discussion. The study is based upon returns of over 80 cities and the data were collected, for the most part, in May, 1914. In addition data were secured by correspondence with more than 300 companies in smaller cities.

No. 209, *Hygiene of the Printing Trades*, by Alice Hamilton and Charles H. Verrill (April, 1917, pp. 118). This is based upon investigations in 130 plants in 7 cities: Boston (including Cambridge), New York (including Garden City), Philadelphia, Baltimore, Washington, Chicago, and St. Louis. Thirty-four of the plants were newspaper offices. Although disease-producing conditions are to be found in many shops, the conclusion is that in general there has been a marked improvement in sanitation during recent years; and several model establishments are to be seen in these cities. A special examination of 200 printers in Boston and Chicago was made and it showed that 107 had impaired health and that 18 of these were suffering from chronic lead poisoning. The experience of the International Typographical Union shows that the health of printers improved between 1900 and 1915. The monograph contains summaries of similar investigations of the printing trades in foreign countries.

No. 213, *Labor Legislation of 1916* (Washington, June, 1917, pp. 197). The material is summarized by topics and by states.

The American Anti-Boycott Association, in its June bulletin, gives a summary of the decisions of the United States Supreme Court in the Paine Lumber Company case (pp. 3) and also prints the decision in full (135 Broadway, New York, pp. 19).

The Industrial Commission of Wisconsin issued in August, 1917, a bulletin giving *Some Statistics of Child Labor in Wisconsin* (Madison, pp. 11). The same commission has published its first report on



*Apprenticeship*, for the year 1916, which discusses the operation of the law of 1915 (pp. 14).

Among recent bulletins relating to better physical conditions in industries is Report No. 28 of the Department of Investigation and Statistics of the Industrial Commission of Ohio, which deals with *Rates of Wages, Hours of Labor, and Fluctuation of Employment in Ohio in 1915* (Columbus, 1917, pp. 336).

The New York State Industrial Commission has published *Proceedings of the First Industrial Safety Congress of New York State*, held in December, 1916 (Albany, 1917, pp. 236).

In the *Second Biennial Report of the Industrial Welfare Commission of Washington, 1915-1916* (Olympia, 1917, pp. 251), one chapter is devoted to the minimum wage law with a historical review of the special experience of Washington; another, to the apprenticeship system (pp. 66-75).

The Bureau of Statistics and Information of the Industrial Commission of the State of New York has made a reprint of the *New York State Labor Law and Industrial Code with Amendments, Additions, and Annotations to July 1, 1917* (pp. 270).

The Joint Board of Sanitary Control in the Cloak, Suit and Skirt and Dress and Waist Industries, New York City, has published its *Seventh Annual Report* (31 Union Square, 1917, pp. 16).

The Department of Immigrant Aid of the Council of Jewish Women (242 East Broadway, New York) published in 1916 *A Brief Summary of Investigations and Inquiries* made between the years of 1905 and 1915 by government and private agencies into typical industries prevalent in the state of New York and affording work to large numbers of women (pp. 45, charts). This is an interesting study relating to wages, hours, seasonal fluctuations, and apprenticeship and trade training. There is a bibliography of three pages.

### Money, Prices, Credit, and Banking

THE EQUATION OF EXCHANGE FOR 1916, as calculated by the usual method is:

Circ. of money (50)	+	Circ. of checks (712)	=	Value of goods bought (762)
Money $\times$ its velocity	+	Deposits $\times$ their veloc.	=	Trade $\times$ scale of prices
$M \times V$	+	$M' \times V'$	=	$T \times P$
2.10 $\times$ 24	+	11.83 $\times$ 60.2	=	595 $\times$ 128 per cent.

That is, the money in actual circulation (*i.e.*, outside of banks and the United States Treasury) was 2.10 billions of dollars and changed

hands about 24 times in the year, thus effecting  $2.10 \times 24$  or 50 billions of exchanges; the volume of deposits subject to check was 11.83 billions and changed hands about 60.2 times in the year, thus effecting  $11.83 \times 60.2$  or 712 billions of exchanges, the two together making a total of  $50 + 712$  or 762 billions. This paid for a volume of trade of 595 billion units (a "unit" of trade being that amount of goods which in the base year, 1909, was worth \$1), at prices 28 per cent higher than the prices of said base year, so that  $595 \times 128$  per cent is also 762.

The large diagram affords full comparison (both visual and numerical) between the above-named figures for 1916 and the corresponding figures for previous years. It will be noted that between 1915 and 1916 there was, as forecasted last year, a general expansion in all the magnitudes of the equation. This expansion, in the case of bank deposits, was more than 25 per cent. In the other magnitudes it ranged from 10 to 20 per cent.

As was the case last year, though not so markedly in 1916, a large part of the increase in the volume of trade was doubtless due to the great expansion of the trade in securities.

The smaller diagram continues that given two years ago, and gives in greater detail the same data at the six dates each year for which the comptroller's figures for national banks are available. The first three dates<sup>1</sup> were before the outbreak of war in Europe.

As noted two years ago, the various magnitudes of the equation of exchange varied little in the first three periods of 1914, preceding the war, but after its outbreak, they fluctuated violently. There were sudden contractions followed by gradual expansions.

The volume of trade showed a sudden fall following the outbreak of the war and a subsequent full recovery distributed through the remainder of 1914. The velocities<sup>2</sup> of circulation showed the same sudden contraction with subsequent rapid recovery.

The money in circulation showed an emergency expansion during the last half of 1914, with a restoration to normal in 1915, and a ten-

<sup>1</sup> The exact dates for the comptroller's data are as follows:

For 1914, Jan. 13, March 4, June 30, Sept. 12, Oct. 31, Dec. 31.

For 1915, March 4, May 1, June 23, Sept. 2, Nov. 10, Dec. 31.

For 1916, March 7, May 1, June 30, Sept. 12, Nov. 17, Dec. 27.

As indicated in the heading of the smaller diagram, all the rates are rates per year, not per month. The method of calculation is the same as that used two years ago and described in this REVIEW for June, 1915.

<sup>2</sup> As to money this is only inferential, on the assumption that its velocity followed that of deposits.

dency to expand towards the end of 1916—a tendency which has been continued in 1917,<sup>3</sup> i.e., beyond the period covered by the diagram.

The deposits, on the other hand, executed an opposite movement, contracting soon after the war began, and expanding during 1916 (and 1917).<sup>4</sup>

These various changes above noted are closely associated with a third magnitude, namely, the *money in banks*, that is, the (cash) bank reserves which are not represented specifically in the diagram but which are given (in billions) in the following table:

MONEY IN BANKS

1914	National	All	1916	National	All
Jan.	1.03		Mar.	.90	
Mar.	1.02		May	.85	
June	1.02	1.67	June	.82	1.91
Sept.	.98		Sept.	.85	
Oct.	1.01		Nov.	.86	
Dec.	.73		Dec.	.88	
1915			1917		
Mar.	.78		Mar.	.89	
May	.79		May	.84	
June	.86	1.77			
Sept.	.91				
Nov.	.92				
Dec.	.88				

These figures and those in the diagram indicate that the shock of war produced a displacement of cash from banks into private pockets and tills, followed by a reaction.

The net effect of all the various changes above mentioned on the scale of prices was trifling during 1914 and the first two thirds of 1915. Since that time there has been a rapid rise to the present time.

The chief factor in this rise has been the quantity of money in circulation and in banks, and the increase in these has been chiefly due to the gold imported from abroad.

<sup>3</sup> Although not all the data needed to establish this conclusion are as yet available it is a fair inference from the two facts (1) that the total money in the United States outside of the U. S. Treasury has increased since 1916 (the figures for the first months of 1917 being successively (in billions): 4.44; 4.50; 4.58; 4.70; 4.74; 4.73; as against a previous maximum of 4.44 in Dec. 1916), and (2) that the part of the above which consisted of the money in national banks did not decrease (being .89 in March, 1917, and .84 in May, 1917, as against an average in 1916 of .86).

<sup>4</sup> Inferable from the fact that the part of these individual deposits subject to check which were in *national* banks are known to have expanded (being 6.37 from March, 1917, and 6.63 for May, 1917, as against a previous maximum of 6.35 in Nov., 1916).

The money in circulation outside of banks is the  $M$  in the diagram and acts on prices through  $MV$ . The money in banks is the basis for deposits ( $M'$ ) and so acts on prices through  $M'V'$ . In both of these, gold has been the dominant element.

Ordinarily the variations in this total money are no greater than those in velocities of circulation or in volume of trade, so that there is, ordinarily, no special or very evident correlation directly observable between the price level and money. But during the war the quantity of money has changed so much more markedly than velocities or trade that it has come to dominate the situation almost completely.

Accordingly, we find that latterly changes in the price level have followed changes in the money quantity (and especially changes in that part of this quantity which consists of gold) with very surprising closeness.

I include a diagram which shows these comparisons month by month.<sup>5</sup> It shows, at the left: (1) a speculative "mark-up" in prices—such as is usually found at the outbreak of wars and which, as it soon proves out of tune with fundamental conditions, disappears: (2) the reduced circulation from the export of gold; and (3) immediately thereafter, the increased circulation from the issue of emergency currency.

After the middle of 1915 the agreement is so close that one can identify the exact corresponding points. We can even measure the lag. We find that a change in price level follows a change in total money after a lag of about two months. This became evident from the time, August, 1915, when the quantity of money first began its rapid increase. One month later prices began to shoot upward keeping almost exact pace with the quantity of money. The striking correspondence has continued up to date.

This close agreement, point by point, between the two upper curves, is shown by dotted lines and the lag, in each case, by the figures in circles, *viz.*, 1,  $2\frac{1}{2}$ ,  $2\frac{1}{2}$ , 2, 2, 1, 1 and  $\frac{1}{2}$  months respectively. Besides these *eight* very obvious cases of point-for-point correspondence we may count about a half dozen other less obvious ones; and besides these there is the very obvious *general* correspondence between the curves.

<sup>5</sup> I have used Dun's index number inasmuch as that of the Department of Labor month by month is not available up to date. The plotting is on a "ratio chart" and therefore gives, in the relative slopes of lines, the *exact* relative percentage changes of the various magnitudes. For a full description see my "The 'ratio' chart," *Publications of the American Statistical Association*, June 1917.

Since at least as early as August, 1915, there are only two points in Dun's curve (*viz.*, February and March, 1916) which seem definitely out of tune with the other curves. Curiously enough these two discrepancies seem to be peculiar to Dun's index number. The other index numbers available (*viz.*, Bradstreet's and that of the United States Bureau of Labor Statistics) do not show these discrepancies, although each has some other discrepancies of its own.

It must be remembered, of course, that any index number is only an imperfect measure of the actual price level, so that even a much rougher agreement than we find might well be expected.

It would be strange indeed if so close a correspondence were accidental. The chances, on any reasonable method of calculation, that the point-for-point correspondences should occur by accident are much below one in a hundred.

The agreement seems, therefore, a sufficient answer to the few who are still unwilling to concede any truth in the so-called "quantity theory" of money. Professor Cassell finds a somewhat similar correspondence in Russia,<sup>6</sup> and Professor J. S. Nicholson of Edinburgh writes me that he is soon to publish a paper showing that "the index numbers of the *Statist* and *Economist* follow the Treasury notes by about three months."

The war has thus supplied a decisive laboratory experiment to test the long contested theories of money.

The great outstanding result is, so far as the United States is concerned, that the war has brought gold to us and that gold-inflation lies at the bottom of the spectacular rise in prices which we have recently experienced.

In the future, now that America has entered the war, we may expect greater and more varied effects. I anticipate, that, with the increased war expenditures and the consequent war loans, there will be a great expansion of deposits and a further great rise in the price level. A more drastic tax policy, as suggested by Professor Sprague of Harvard, would go far to retard and lessen this effect.

IRVING FISHER.

*Yale University.*

The Federal Land Bank of Springfield, Massachusetts, has issued a leaflet on *How to Secure a Loan* (pp. 4).

<sup>6</sup> "The Present Situation of the Foreign Exchanges," by Professor Gustav Cassell, *Economic Journal*, vol. XXVI, no. 103 (Sept., 1916).

State bank reports received are:

*Annual Report of the Commissioner of Banking and Insurance of New Jersey*, 1916 (Trenton, 1917, pp. 41).

*Eleventh Biennial Report of the Bank Commissioner of Missouri* (Jefferson City, 1917, pp. 490).

The Pompeian Company, Baltimore, has published a large number of useful circulars and pamphlets in advocacy of governmental control of foreign exchange.

### Public Finance

FINANCIAL STATISTICS OF STATES, 1916. The second annual report under this head, issued by the United States Bureau of the Census, was published in October. Practically all of the text, which takes up approximately half of the volume of 127 pages, is exactly like that of the previous report except that the figures are different; and, similarly, nearly all of the comments which were made in the March, 1917, issue of this REVIEW about the first report are likewise applicable to the more recent publication. It will be recalled that most of these statistics are for the fiscal year of 1915 despite the title which indicates that they are for 1916.

A few tables, supplementary to the general tables, are added, thus showing some items more in detail in the latest report. The general tables are exactly the same in number and title, with the exception of a very slight change in one title. A few of the general tables are expanded slightly; for example, the last table contains nine additional columns which compare assessed valuations and rates of levy with "estimated true" values and levies. This is done for each state for each of three classes of property, real personal and "other property."

Only ten states, Maine, Massachusetts, Connecticut, New Jersey, Indiana, Wisconsin, West Virginia, Oklahoma, Colorado, and Arizona, are reported as assessing both real and personal property at 100 per cent of its true value. Two others, Kansas and Virginia, are reported as assessing personal property at true value. Nebraska's assessment of 20 per cent of true value for all classes of property is the lowest given, though several other states are as low as 25 per cent and 30 per cent. In some of these states such assessments have been made legal; in others they are made by common consent, though contrary to the statutes.

The latest report makes no comparisons with the former one. This is left for the reader who has both volumes at hand and the patience to go through the same. Perhaps such comparisons would not be

worth a great deal in view of the lapse of only a year. The writer might mention for what it is worth, however, that the average of the percentages of revenue receipts required for current expenses and interest was greater, and the part available for outlays and other purposes was less, in the so-called fiscal year of 1916 than the previous year. More states are shown to have had payments for expenses and interest in excess of revenue receipts for the later year, and, as might be expected, the average per capita indebtedness for the state governments (not including that for local subdivisions, which is much greater) is shown to have increased from \$5.90 to \$6.03 during the twelve months.

It is to be hoped that these annual reports will be continued and, furthermore, that the later ones will contain brief summaries, showing important changes and trends.

ROY G. BLAKEY.

TAXATION IN OHIO. *The Tax Laws of Ohio* (Columbus, 1917, pp. 75) relating to the assessment of real and personal property, as amended by the enactment in 1917 of the non-partisan tax law, have been issued by the tax commission in codified form with instructions for county auditors, assessors, and boards of revision. It is declared in Section 4 of the law that the legislation is of an emergency character. It was made necessary by a judgment of the supreme court in January of this year declaring unconstitutional those provisions of the Parrett-Whittemore tax law of 1915 which authorized the appointment, instead of the election, of assistant assessors and county boards of revision and the fixing of their compensation annually instead of for their entire term by the general assembly. The decision left the state without adequate means of levying and collecting taxes for 1917 and thereafter. A joint bipartisan committee of the legislature in session at the time was appointed at once to deal with the situation, and it recommended a bill which was adopted in March by both senate and house. It is the purpose of this note to indicate the purport and significance of the new legislation.

This revision of the tax laws accurately reflects the unsettled tax situation in the state. Decentralized control of the taxation of all property is again endorsed, and elective assessors are retained. The law provides that "no experts, assistant, clerk employee, or assistant assessor herein provided for shall be subject to the provisions of any civil service law or regulation." No advance is made, therefore, toward freeing the officials from the influence of political considerations in their assessment work. The long-standing difficulty of securing a

complete listing of personalty and of distributing the burden of taxes equitably between the holders of real, tangible, and intangible personal property is dealt with in one novel provision requiring the owner to make oath to his own return of all classes of personalty which under the law are still taxable at a uniform rate for their true value.

The general aim of the revision is to provide promptly the necessary assessment machinery. Accordingly existing officials are utilized, and the county is made the unit for assessing real property. The county auditor is made the chief assessing officer of real estate with enlarged supervisory powers over the elected assessors and their appointed assistants who have the same qualifications but duties differentiated from those of the elective assessors. The compensation of an assessor or an assistant is fixed in the law at \$4 per day while necessarily engaged in the performance of his duties. The powers of the office of assessor are exercised largely under the direction of the county auditor in assessing real estate, examining all returns, ascertaining omissions or improper valuations of property, correcting such lists and returning them to the auditor. That the office has lost some attractiveness is borne out by reports to the tax commission from 51 counties reporting to date (October) the expense of assessors' salaries which show that these counties have been able to save from 25 to 90 per cent of the amount heretofore expended under this head. Thus, Montgomery County, whose return of personal property valuations alone increased from \$53,036,020 in 1916 to \$66,933,690 in 1917, expended for the services of assessors in 1917 \$3,883 as compared with \$7,892 for the preceding year. It has also been observed in a larger number of instances than usual that men are not being nominated for nor seeking the office of assessor at the fall elections, presumably in part because of the lessened prestige of the office. The advocates of appointive instead of elective assessors may accordingly derive encouragement from the fact that although this year's legislation continues elective assessors as such, the narrowing of their duties under the provisions of the new law tends toward their gradual elimination from the system.

The county auditor is required to ascertain annually whether the assessed value of all the real property in his county corresponds to its true value. Twenty-five freeholders or the board of trustees or council may petition in any year for a reassessment of the real estate of any township. With the confirmation of the county board of commissioners the county auditor may make in such case any corrections, readjustment or assessment that may be ordered.

The county treasurer, the county auditor, and the president of the



board of county commissioners constitute a county board of revision. They may meet at any time during the year at the call of the secretary to examine and revise the statements and returns of personal property made to the county auditor, and to revise the assessment and listing of real estate by the county auditor for the current year. Complaints filed with the county auditor alleging unfair assessment of property must be investigated by the board, who may order a reassessment or an increase or a decrease in any valuation. The officials composing the boards of revision receive no extra compensation for their added duties, and it is doubtful whether ex-officio members designated in this way may be expected to render efficient service in the work of tax revision. Furthermore, since there is no power of removal of ex-officio members, any control of the tax commission over tax revision is indirect and ineffective. The county auditor, being made secretary of the board, is obviously of slight aid in revising his own assessment and listing of property.

The most vital and distinctive provisions of the law are those that were devised to facilitate the listing of personal property, particularly intangibles, moneys, credits, and stock and bond investments. For this purpose the scheme of voluntary listing was introduced. At the basis of the plan is the belief that the taxpayer will correctly answer direct questions, if he confronts himself with them. The tax commission is directed to prepare blanks containing questions "which will elicit a full disclosure of all property" required to be thus listed. The tax blanks are to be left in convenient places to be called for by taxpayers, or to be sent to them by mail. Property owners in this way are made responsible at the outset for going through the process of listing at their true value all items of personal property held during the year, and of subscribing upon their own initiative to an oath as to the correctness of each evaluated item, and of delivering in person or by mail the sworn returns to the county auditor. Failure to make a voluntary return before May 1 forfeits the right to an exemption of \$100 provided under the law. The county auditor may go over the returns with the local assessors of the respective taxing subdivisions and refuse to receive any incomplete statements of property. Under the direction of the county auditor the local assessor may call upon the person omitting or incorrectly listing property and upon actual view list and assess it correctly. When false returns are discovered, or if the property owner has refused to make a voluntary return or to make oath to his return, the county auditor is required by the law to list and assess all such property adding thereto 50 per cent of the assessed value.

Voluntary listing on several counts appears impracticable as a means of permanently securing a complete return of personalty for taxation. First, there is the difficulty for the person of average intelligence of recording accurate answers to a long list of printed questions; then, the effort of subscribing to an oath before an official; third, the inconvenience of delivering in person or sending by mail within a specified time the sworn return to the county auditor. Further, there is the inequity and the injustice invariably resulting from wide variations in the judgment and conscience of men when estimating the value of taxable property. Finally, experience in other states has shown that it is impossible by any plan yet devised to secure a complete return of intangible personal property to be taxed at a uniform rate with all other property which amounts usually to taking from 20 to 50 per cent of the income of this property. However, the 1917 returns of personal property to the tax commission from 51 counties are favorable to the new law in this respect. Thus, these counties under the Parrett-Whittemore law in 1916 returned personalty to the commission to the amount of \$751,539,318, while under the new scheme of listing the personalty valuation in 1917 amounts to \$879,587,403, showing a gain of \$128,048,085. Only one of the counties shows a loss in personalty valuation as compared with the preceding year, the amount being \$68,454. The same counties in 1916 showed a gain in personalty returns over 1915 of \$31,789,457. These figures indicate apparently that a considerable part of the increased returns of this year must be due not merely to normal growth nor to a higher level of prices nor to any greater prosperity in 1917 than prevailed in 1916, but to the plan of voluntary listing. It will be of interest to observe the complete record of the returns for this year and succeeding years with the voluntary plan in operation.

F. E. WOLFE.

*Ohio Wesleyan University.*

The *Minority Report* of Senator La Follette of the Committee on Finance relating to revenues to defray war expenses has been issued as Senate Report 103, Part 2 (65 Cong., 1 Sess., pp. 99). It contains tables showing the application of the income and war-profit taxes to the net income of a large number of corporations.

Bulletin No. 3 of the Rhode Island Tax Officials' Association is especially devoted to the *Valuation of Automobiles* (Providence, Sept. 1, 1917, pp. 21).

The Irving National Bank has issued a pamphlet entitled *Practical Questions and Answers* on the federal tax law affecting individuals,

partnerships, and corporations, prepared and copyrighted by Breed, Abbott, and Morgan (October, 1917, pp. 73).

Summaries or reprints of the recent federal war revenue act of October 3, 1917, have been prepared by: A. B. Leach & Co., 62 Cedar St., New York (pp. 38); Guaranty Trust Company, 140 Broadway, New York (pp. 132); National Shawmut Bank, 40 Water St., Boston (pp. 16); and The American Exchange National Bank, New York City (pp. 78).

### Insurance

PROCEEDINGS OF THE CONFERENCE ON SOCIAL INSURANCE, 1916. The plan of holding the meeting of the International Congress on Social Insurance in Washington in 1914 or 1915 had to be given up because of the war. In its place the International Association of Industrial Accident Boards and Commissions, under the inspiration of commissioner Royal Meeker of the United States Bureau of Labor Statistics, proposed an American Conference on Social Insurance at Washington. The date was finally arranged for December 5 to 9, 1916, and the volume containing the text of the papers presented and the stenographic record of the discussions from the floor is now at hand in the form of a Bulletin of the United States Bureau of Labor Statistics, Whole Number 212 (*Proceedings of the Conference on Social Insurance*, 1917, pp. 935). The conference covered the field of workmen's compensation, health insurance, invalidity and old-age insurance, maternity benefits and mothers' pensions, and, finally, unemployment, and savings bank insurance.

The papers and discussions on workmen's compensation are characterized by a general acceptance of the principle of compensation; not one speaker refers to the possibility of a return to the old liability system. All of the papers are devoted to questions of administration, forms of policy, methods of awards, charges, medical service, needed changes in the laws, etc. Perhaps the most energetic debate on compensation centered on the advantages of state insurance funds as competitors of private companies compared with the advantages of giving the state fund the monopoly of compensation insurance. The account of the difficulties experienced by one state fund in very active competition with private companies was, to say the least, vivid and illuminating. The important and hitherto somewhat neglected subject of medical service, medical and hospital fees under workmen's compensation, is discussed by a number of officials of compensation boards. Dr. F. D. Donoghue, of the Massachusetts board, emphasized

strongly the need of development in this aspect of American laws. The discussion of the question of physical examination of employees brought out the strong opposition of the trade-union representatives to this plan of selecting the employees of an establishment; a good case in favor of the plan was made by a number of physicians in charge of such work. The discussions on workmen's compensation were concluded by a paper of Professor W. C. Fisher on the defects and the needed changes in American compensation laws.

Recently the question of the reëducation of the worker permanently disabled by accident has become prominent, and it is a matter of regret that only one paper of the proceedings was devoted to this topic; a number of constructive suggestions by the author however, make the paper of special value.

The topic of health (sickness) insurance was introduced by papers on group insurance, existing agencies in the United States, trade-union insurance, establishment funds of the large corporations, mutual benefit funds, the University of California system of students' health insurance, and joint-stock company insurance. With this introduction, a debate showing wide divergence of opinion began. Dr. J. B. Andrews, of the American Association for Labor Legislation, outlined the general features of the bill advocated by that organization. A representative of the American Federation of Labor and a representative of the National Association of Manufacturers followed by stating the grounds of their opposition to the proposal. A comprehensive study of the existing information on the needs of women wage-earners, by Miss Mary Van Kleeck, formed one of the outstanding contributions of the conference. The remarks of Mr. F. L. Hoffman in opposition to the proposed health insurance bill covered fully the objections to the plan. The discussion on the plan amply justified the calling of the conference in the presentation of the different views of the employers, wage-earners, physicians, and students of the question.

The special value of the publication, aside from the vast amount of authoritative information it contains, is the picture it gives of the state of opinion on social insurance at the present time. The careful editorial work of the Bureau of Labor Statistics is evident throughout the volume.

HENRY J. HARRIS.

The federal Bureau of Labor Statistics in Bulletin No. 210 presents the *Proceedings of the Third Annual Meeting of the International Association of Industrial Accident Boards and Commissions*, held at Columbus, Ohio, April 25-28, 1916 (Washington, May, 1917, pp. 254).

The Industrial Commission of New York has made a reprint of the

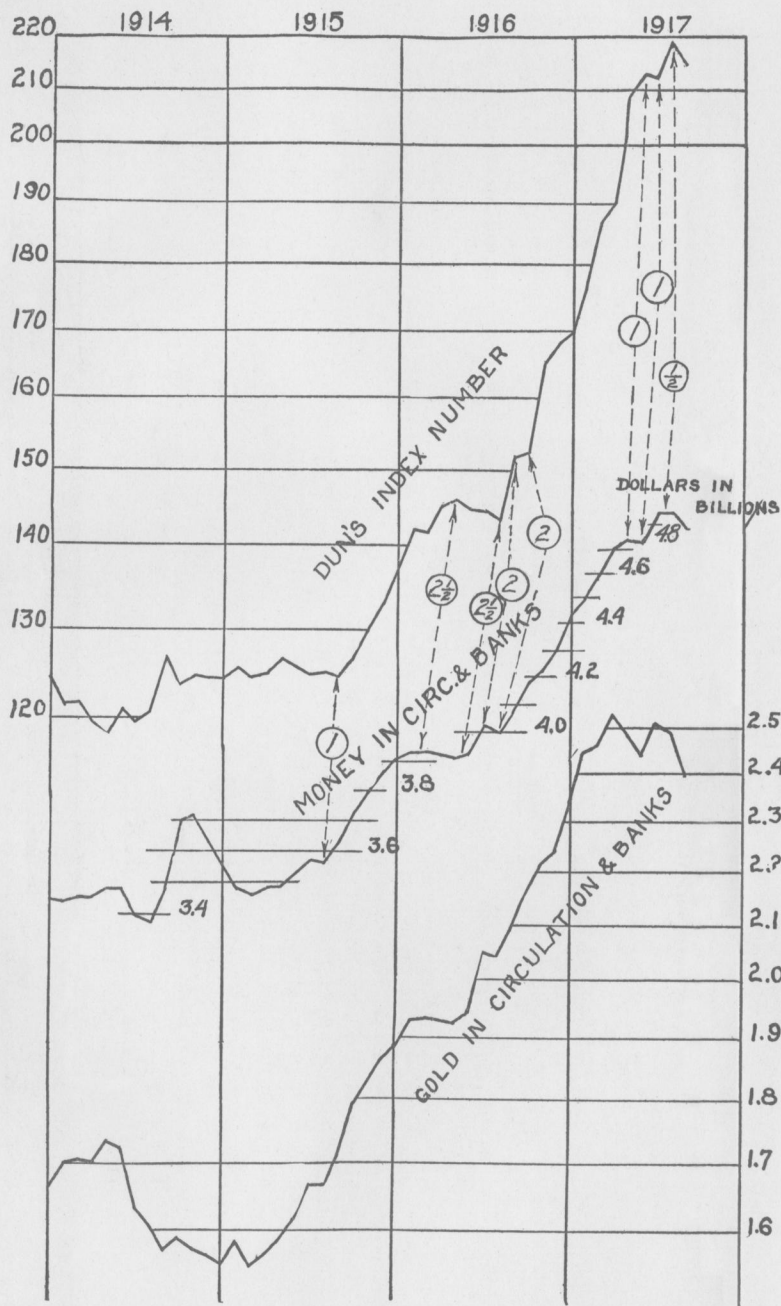
*Workmen's Compensation Law* of that state with amendments to July 1, 1917 (Albany, pp. 79).

The State Department of Labor of Nebraska has made a report upon the operation of the *Workmen's Compensation Law* for 1915 (pp. 164).

The *Report of the State Compensation Commissioner of West Virginia* reviews the administration of the workmen's compensation law to June 30, 1916 (Charleston, pp. 137).

The Insurance Society of New York has printed the following addresses: *Estimates on Building Values and Building Losses*, by William J. Moore (pp. 14); *Concealment, Misrepresentation, Fraud or False Swearing*, by Frank Sowers (pp. 27); and *Waiver and Estoppel*, by Waldemar J. Nichols (pp. 35).

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The black areas indicate weights, or counter-weights, the equilibrium of which corresponds to the "equation of exchange."

These black areas from left to right represent:

$M'$ , i.e., bank deposits subject to check in billions of dollars.

$M$ , i.e., money in circulation in the United States (outside of the United States Treasury and the banks) in billions of dollars.

$T$ , i.e., the volume of trade circulated in billions of "units" (each "unit" being that quantity which could be purchased for one dollar in 1909).

The lever arms of the above three weights represent:

$V'$ , i.e., the velocity of circulation ("activity") of the deposits,  $M'$ .

$V$ , i.e., the velocity of circulation of the money,  $M$ .

$P$ , i.e., the index number, or scale of prices, at which the trade,  $T$ , is conducted. (This scale of prices is measured as a percentage of the scale of prices of 1909.)

$$M' \times V' + M \times V = T \times P$$

$$271 \times 36.6 + 291 \times 36.3 = 1912 \times 60.3\%$$

P, *i.e.*, the index number, or scale of prices, at which the trade, T, is conducted. (This scale of prices is measured as a percentage of the scale of prices of 1909.)

	$M' \times V + M \times V$										$T_x P$											
1896	80	70	60	50	40	30	20	10	0	10	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	100%	120%
	$271 \times 36.6 + 88 \times 18.6$										$191 \times 60.3\%$											
1897	80	70	60	50	40	30	20	10	0	10	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	100%	120%
	$265 \times 39.4 + 90 \times 19.9$										$215 \times 60.4\%$											
1898	80	70	60	50	40	30	20	10	0	10	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	100%	120%
	$322 \times 40.6 + 97 \times 20.2$										$237 \times 63.2\%$											
1899	80	70	60	50	40	30	20	10	0	10	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	100%	120%
	$388 \times 42.0 + 103 \times 21.5$										$289 \times 71.6\%$											
1900	80	70	60	50	40	30	20	10	0	10	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	100%	120%
	$444 \times 38.3 + 118 \times 20.4$										$293 \times 76.5\%$											
1901	80	70	60	50	40	30	20	10	0	10	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	100%	120%
	$513 \times 40.6 + 122 \times 22.8$										$297 \times 80.5\%$											
1902	80	70	60	50	40	30	20	10	0	10	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	100%	120%
	$540 \times 40.5 + 125 \times 21.6$										$287 \times 88.7\%$											
1903	80	70	60	50	40	30	20	10	0	10	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	100%	120%
	$579 \times 39.7 + 139 \times 20.9$										$310 \times 85.6\%$											
1904	80	70	60	50	40	30	20	10	0	10	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	100%	120%
	$577 \times 39.6 + 136 \times 20.4$										$310 \times 85.6\%$											
1905	80	70	60	50	40	30	20	10	0	10	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	100%	120%
	$654 \times 42.7 + 145 \times 21.6$										$353 \times 87.7\%$											
1906	80	70	60	50	40	30	20	10	0	10	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	100%	120%
	$681 \times 46.3 + 158 \times 21.5$										$375 \times 93.2\%$											
1907	80	70	60	50	40	30	20	10	0	10	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	100%	120%
	$713 \times 43.3 + 163 \times 21.3$										$384 \times 93.2\%$											
1908	80	70	60	50	40	30	20	10	0	10	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	100%	120%
	$657 \times 44.8 + 182 \times 19.7$										$381 \times 90.3\%$											
1909	80	70	60	50	40	30	20	10	0	10	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	100%	120%
	$668 \times 52.6 + 161 \times 21.1$										$387 \times 100.0\%$											
1910	80	70	60	50	40	30	20	10	0	10	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	100%	120%
	$723 \times 52.7 + 164 \times 21.0$										$399 \times 104.0\%$											
1911	80	70	60	50	40	30	20	10	0	10	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	100%	120%
	$778 \times 49.9 + 164 \times 20.9$										$413 \times 102.2\%$											
1912	80	70	60	50	40	30	20	10	0	10	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	100%	120%
	$817 \times 53.5 + 171 \times 22.0$										$430 \times 103.3\%$											
1913	80	70	60	50	40	30	20	10	0	10	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	100%	120%
	$815 \times 54.0 + 178 \times 21.0$										$455 \times 104.8\%$											
1914	80	70	60	50	40	30	20	10	0	10	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	100%	120%
	$889 \times 48.8 + 194 \times 17.0$										$432 \times 104.0\%$											
1915	80	70	60	50	40	30	20	10	0	10	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	100%	120%
	$939 \times 43.6 + 179 \times 22.0$										$512 \times 106.0\%$											
1916	80	70	60	50	40	30	20	10	0	10	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	100%	120%
	$1182 \times 59.9 + 210 \times 24.0$										$609 \times 129.0\%$											

193	80	70	60	50	40	30	20	10	$\square$	$=$	$1.78 \times 31.0$	$+ 5.15 \times 54.0$	45.5 %	104.8 %
194	80	70	60	50	40	30	20	10	$\square$	$=$	$1.94 \times 17.0$	$+ 8.89 \times 48.8$	43.2 %	104.0 %
195	80	70	60	50	40	30	20	10	$\square$	$=$	$1.79 \times 22.0$	$+ 9.39 \times 53.6$	51.2 %	106.0 %
196	80	70	60	50	40	30	20	10	$\square$	$=$	$2.01 \times 24.0$	$+ 11.82 \times 49.9$	60.9 %	109.0 %

EQUATION OF EXCHANGE FOR SIX PERIODS IN 1914, 1915, AND 1916

( $V'$ ,  $V$ , and  $T$  have been multiplied by twelve, to convert them from rates per month to rates per year.)

The figure consists of 12 horizontal bar charts, one for each month from January to December. Each chart displays two data series: 'M' x 'V' (represented by dark bars) and 'M' x 'V' + 'M' x 'V' (represented by light bars). The x-axis for each chart is a scale from 0 to 100, with major tick marks every 10 units. The y-axis labels the months: JAN., FEB., MARCH, APRIL, MAY, JUNE, JULY, AUGUST, SEPT., OCT., NOV., and DEC.

For each month, the 'M' x 'V' series is shown as a dark bar starting at 0 and ending at a value indicated by a vertical line and a number. The 'M' x 'V' + 'M' x 'V' series is shown as a light bar starting at the end of the dark bar and ending at a value indicated by a vertical line and a number. The total length of the light bar represents the sum of the two series.

Approximate values for the 'M' x 'V' series (dark bars) for each month:

- JAN.: 10
- FEB.: 15
- MARCH: 20
- APRIL: 25
- MAY: 30
- JUNE: 35
- JULY: 40
- AUGUST: 45
- SEPT.: 50
- OCT.: 55
- NOV.: 60
- DEC.: 65

Approximate values for the 'M' x 'V' + 'M' x 'V' series (light bars) for each month:

- JAN.: 100
- FEB.: 115
- MARCH: 130
- APRIL: 145
- MAY: 160
- JUNE: 175
- JULY: 190
- AUGUST: 205
- SEPT.: 220
- OCT.: 235
- NOV.: 250
- DEC.: 265